

## **Evaluation of forest calamities using the remote sensing data**

### **Abstract**

The objective of this paper is to evaluate possibilities of medium-spatial resolution satellite data assimilation for monitoring of the forest disturbances.

The aim of the study is to monitor the bark beetle outbreak in the Šumava Mountains. For this purpose were used eight MERIS scenes from 2002 to 2009. Spectral response of the damaged spruce stands has been analyzed on the basis of the values of selected vegetation indices (NDVI, LAI, LAI.Cab, fCover, fAPAR and three newly defined indices) and their temporal progress. The results were compared with values for healthy forests.

The values of spectral indices have shown the ability of data MERIS to monitor forest disturbances at regional scale.